

CENTRAL BANKING FOR A POST-CRISIS WORLD: SOME THOUGHTS ON INDEPENDENCE, DEMOCRACY AND LEGITIMACY

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PAUL TUCKER, HARVARD KENNEDY SCHOOL AND BUSINESS SCHOOL

The ancient history of Athens provides a point of departure for my remarks today. From the top of the hill in which this conference is being held, one can see two hills central to the foundations of western civilization – of liberal democracy. They carry powerful messages down the centuries.

On one hill, the Pnyx, the Assembly met sometimes: the inspiration for democracy. On the other hill stands the Temple of Athena, where one of the great stories making us who we are played out. In Aeschylus' *Oresteia*, there is an absolute catalogue of disasters – contingent disasters and moral disasters. Towards the end of the tragedy, the protagonists travel to the Temple of Athena seeking resolution, chased there by the Furies, who want and urge revenge. But the Furies are dispatched, because revenge and vengeance are no solution to anything. Instead, the answer is reason and justice. That remains as inspiring today as I expect it was to the Athenians 2,500 years ago.

That's worth hanging onto as this continent grapples with perhaps its most serious economic crisis since the Second World War, especially as the roots lie in ambition (to build a monetary union) and timidity (reluctance to complete the steps necessary to make that monetary union robust). It's worth hanging onto because as countries --- citizens, elected politicians and officials --- have confronted the crises of the past seven years, the anchors to which they have needed to hold are democracy, justice and reason.

If that seems like a rather high falutin way to open some remarks on a subject as prosaic as central banking and monetary policy, I do so for two reasons. First, the citizens of Continental Europe, and nowhere more than here in Greece, have had to call on reserves of fortitude, patience and adaptability that no modern generation of democratic policymakers had remotely conceived of. But also, second, because, like it or not, it has been central bankers --- powerful, independent and *unelected* --- who have been centre stage. No central banker expected to be making decisions with such profound effects on the livelihoods and well-being of the citizens they serve. And many have rightly felt acute discomfort at being, as some have put it, the 'only game in town'¹. If the innovations and, as some see it, mandate-extensions have been necessary, first, to contain the crisis and, more recently, to try to put the economy on a path to recovery, many central bankers would be towards

¹ For a broader review, see Tucker "The Only Game In Town? A New Constitution for Money (and Credit) Policy", Chicago Booth School of Management Myron Scholes Lecture, 22 May 2014.

the front of the queue in pleas to reaffirm or reframe their mandates, on a proper constitutional basis, for the future. Indeed, some of that has been underway, including the ECB being given a much bigger role in bank supervision.

Political economy is, therefore, my subject. I will talk about three things – monetary policy, including lessons and more or less where we are currently; secondly, banking policy and how that relates to the euro area's monetary union and to the advent of macro-prudential policy regimes; and thirdly, the future of central banking and, in particular, policy on interventions in financial markets.

Monetary policy: sticking to the mandate

On monetary policy, I will start by emphasizing that it's tremendously important that central banks distinguish between, on the one hand, those of their policies that are directed towards stimulating demand – spending in the economy – and, on the other hand, those that are directed towards fixing the transmission mechanism of monetary policy – fixing the credit system, fixing the things that are impeding the effectiveness of monetary policy.

That distinction is not quite as clear cut as in normal circumstances, due to the problems in the euro area's so-called 'periphery' economies (a dreadful expression, by the way). But nevertheless it remains important.

The Euro area has been experiencing inflation outturns considerably below 2%. More important, for some months now there has been a threat of deflation. That doesn't mean that deflation is the most likely or central prospect, but it means that there is a significant probability of deflation occurring. Given the costs of deflation, this has in my view for some time warranted additional monetary stimulus, which is, perhaps, starting to come.

But this isn't to do with fixing the problems in the periphery economies. It isn't to do with the economies that are or have been in crisis – Greece, Ireland, Portugal, Spain, to some extent Italy. This is to do with deficient demand in the Euro area as a whole, and thus in its largest economies. The case for monetary stimulus is to increase demand and bring inflation back towards the target of around 2%, and to head off the risks of deflation. The publication of probabilistic forecasts of inflation and of output growth would, I suspect, have made that case more apparent by highlighting the downside risks.

Achieving the inflation mandate for the Euro area as a whole entails, in this cycle, that inflation in Germany should run at somewhat above 2%, with inflation elsewhere somewhat below 2%. And let me stress that that should be fine --- that's to say,

acceptable --- if the Euro area as a whole is to have around 2% inflation, because the legal objective of achieving price stability, and thus the ECB's target of 2%, are for the Euro area as a whole. If anyone were to argue that the target must be achieved in any particular country, rather than in the euro-area as a whole, that would raise questions about commitment to the rule of law.

Separately, however, there is a risk, and one which weighs with many central bankers, of active monetary stimulus blunting the incentives of others to pursue the more fundamental reforms needed to improve longer-run economic performance. Crudely, there is a risk that central bank policy will relieve elected politicians of the incentives to fix the underlying problems in the economy – in this economy here in Greece, in France, Italy and elsewhere. That risk is real, and if it crystallizes a serious problem. But I do not see how central bankers can have a right to succumb to this argument. Let me explain.

Some argue that central banks should provide less stimulus --- less than is needed to achieve the inflation target --- so as to increase the pressure on politicians to get on with the heavy-lifting of structural reform. But this is a dangerous argument, where central bankers start to play God. None of us on this panel, as former central bankers, was elected. Each of us, when we were in office, was given a mandate from elected politicians – acting on behalf of the people – to pursue an inflation target, and that is what we were bound, by the rule of law, to do; and it is what our successors must do. And if that means that the politicians succumb to the temptation of not making necessary reforms, then it is *they* who have to be accountable to the people.

To a large extent, central bankers have resisted the temptation to play strategic games with the politicians. And I am *not* saying that central bankers are precluded from airing concerns, or even warning the public, of risks ahead if reform were not pursued. That can be done quite drily, in the language of economics.

Lessons for monetary policy: principled policy and the forward-guidance debate

None of this is to say that the operation of monetary policy has been without blemish. Perhaps striking a slightly different note from my friend and former Bank of England colleague Don Kohn, I think there *are* lessons from the operation of policy in the run-up to the crisis.

It will probably be 20 or 30 years before economists pin down what happened. But I do think that loose monetary policy – or, more particularly, the promise of persistent loose monetary policy – partly fueled the search for yield that inflated asset prices and stretched the balance sheets of lenders and borrowers alike.

I don't think, by any means, that that was the main cause of the 2008/09 crisis being so deep. Nor do I think the global imbalances associated with the rise of China were the main cause, even though they too fueled credit market exuberance by driving down the world real rate of interest and so driving up asset prices. Both those macroeconomic factors contributed to an exuberant credit boom that left many borrowers over-indebted. But, in my view, the main cause of the depth of the crisis in 2008/09 was absolutely woeful regulatory policy, which left the banking system so thinly capitalized that it was blown over when the economic weather turned². But nevertheless, I think monetary policy played a part.

Looking back, therefore, one possible lesson is that central banks should be less bothered about short-term volatility in asset prices. By making promises or appearing to make promises about a smooth or gradual adjustment in policy-interest rates, central banks can find themselves in a trap where, if they appear to diverge from perceptions of a 'plan', the markets become horribly volatile, and they retreat from doing what they think they should do to achieve their mandate.

If, as I think they should, central banks set their interest rate policy (or their monetary policy instruments more generally) on the basis of judgments about what is prospectively happening to the amount of slack in the economy and the outlook for inflation, sometimes markets will make incorrect predictions about the course of policy. When markets make those mistakes, they are liable to overshoot in the short run. By losing money, market participants sometimes find themselves incentivized to learn about the central bank's reaction function and about the fallibility of central banks' own forecasts. Central bank policy should not twist itself to the market's desire or demands for 'certainty'. That was a hazard a decade ago, and perhaps remains one. This will be important over the coming few years when, at different times, central banks withdraw the exceptional monetary stimulus provided in recent years.

This relates, of course, to the debate about forward guidance. My starting point is the policy should be principled. The principles should be clearly articulated and comprehensible – not just to experts, but to those members of the public who want to engage with the issues.

That is what judges have been doing now for hundreds of years. And whether it's under civil Roman law or the common law that my country uses, judges are expected to stick to principles, and they are not expected to depart from those principles.

Principled policy should turn out to be systematic. In some ways, I think that is a more honest way of thinking about monetary policy than describing it as 'rule-based' --- where the truth is that, over a quarter of a century, central bankers and economists have twisted the hermeneutic meaning of the expression 'rule-based' away from what the general

² Tucker, "Capital regulation in the new world: the political economy of regime change", Yale Program on Financial Stability, Yale, 1 August 2014.

public would understand into a term of art that builds a bridge from Harvard and MIT to Chicago. But I think that everybody agrees that policy should be principled and systematic.

By and large, central banks *have* found a way to deliver that over the past 20 years or so. They forecast the outlook for demand relative to the path of supply; they explain the things that are driving that outlook and explain how it is likely, in a probabilistic way, to affect the outlook for inflation; they explain how their policy settings feed-back from those forecasts; and, finally, they increasingly try to explain why some of their forecasts proved wrong.

One of the things to be welcomed about this general approach to policy making is that it invites intelligent scrutiny and challenge, which is essential to democratic legitimacy. Thus, in the US we have people like John Taylor arguing that the Fed has departed from its past practice. In my book, this is good, because it's precisely those challenges that give central banks the opportunity, and indeed the duty, to explain whether they have had to adapt their principles in the light of what they've learned about the world or, indeed, whether the accuser or the challenger has misunderstood some consistent element in policy. For example, do the Fed and John simply have different views of what's happening to the short-run equilibrium real interest rate or of the amount of slack in the economy?

So I think my big message on this is that, in many ways, central banks should stick to what they had already learnt before the crisis about the merits of principled, systematic monetary policy, but should perhaps sometimes fret less about short-term market volatility.

Monetary policy and banking policy: the banking union is incomplete

Let me now say something about how monetary policy interacts with banking policy, where there has been lots to learn. I will first address the design of the euro area's monetary union and banking union and then, secondly, the framing of macro-prudential policy regimes.

The monetary union was badly designed. Citizens throughout this continent are suffering as a result. A lot of people are very angry about the circumstances in which they and their families and friends find themselves. But those original mistakes can't be undone. There's no going back. Reason, not vengeance, is the way forward, but that requires politicians and policymakers to confront those design faults. So where does that leave us on the banking union? After broadly welcoming this vital initiative, I will flag a concern about how it leaves the broader architecture of EMU incomplete.

It is tremendous that banking supervision is moving to Frankfurt, to be under the ECB. There isn't time to elaborate on this here, but I don't at all agree with people who think there is a conflict of interest between supervision and monetary policy when supervision is in the central bank. Further, I think the EU's new Directive-based regime for resolving banks --- even very big banks *provided* they restructure themselves --- is good. The decision-making structure for resolutions within the euro area itself is, yes, somewhat cumbersome. But I think national authorities will be most unwise if they don't defer to the centre.

The component of the new settlement that worries me is deposit insurance. Think of it this way – a monetary union is a union of money. There are two types of money. There is the money that the central bank issues. That's a relatively small fraction of the money that circulates and gets used in the economy. Secondly, there's deposit money with banks, which is nearly all the money that people and firms use. And if you are to have a monetary union, that second type of money – deposit money – needs to be homogenous as well. But the deposit insurance package is problematic in this respect, as each member state has its own separate system. Better either not to have deposit insurance – which is surely infeasible in modern democracies – or, alternatively, to have a unified deposit insurance scheme for the Euro area as a whole. Without it, EMU has a series of national moneys. That's problematic, and will leave a fault line in the euro area even after the current crisis has passed.

Addressing that design fault requires policymakers and the people to address what *form* of fiscal union they want to adopt and how to get there. This is the great question that the Euro area will have to confront in the years ahead. The designers of the banking union have done a good job, but it will not be enough to ensure the sustainability of the monetary union over the long run. Eventually, there will have to be some kind of fiscal union.

Since the beginning of the crisis, I have believed that it ought to be possible for the governments of member states to default within the Euro area, just as states of the United States can default within the federal union of the United States. But the people should not be victim entirely of the mistakes of their own governments and authorities. For the continent of Europe – the Euro area – to have solidarity, I think there has to be some kind of catastrophe cyclical unemployment insurance system. That would help address the underlying problem of how to handle asymmetric shocks within a single-currency area; by kicking in only during catastrophes, it would preserve member-state self-insurance during normal fluctuations; and it would not reduce incentives to reduce the intolerably high levels of structural unemployment in some countries.

The challenge is to match the unavoidable economics of a currency union to its politics.

Macro-prudential policy: a broader mandate for stability

Even were that to be done, exuberance in the financial sector and beyond will recur. While the monetary, banking and fiscal union of the US helped America handle the crisis, it didn't prevent the crisis. As the next panel is about financial reform, I will say something only about the part of that programme that bridges to macroeconomic policy: the design of macro-prudential regimes.

In my view, macro-prudential policy cannot sensibly be engaged in some incredibly ambitious fine-tuning of the credit cycle. In other words, I think monetary policy should be used for macroeconomic demand management, and macro-prudential policy should be used to ensure the resilience of the financial system. That will have the effect sometimes of leaning against the boom phase of the credit cycle, but it is not the same as trying to manage the credit cycle. I shall explain, and I hope that an analogy might help.

The benchmark instruments of the *dynamic* part of a macro-prudential policy regime are the capacity to *vary* capital, liquidity and collateral requirements in the light of evolving threats to the stability of the financial system. In an important sense, this is *not* about changing the regulatory goalposts. Rather it is about dynamically recalibrating, as needed, to maintain a broadly unchanged degree of resilience in the system.

This is broadly analogous to the operation of monetary policy. In order to keep the path of aggregate demand broadly in line with the economy's productive capacity, the central bank changes its policy rate of interest in a way designed to keep the short-term real rate of interest (r) in line with the underlying equilibrium rate of interest that would maintain the economy in balance if prices and wages were flexible (r^*). Thus, in the face of shocks to the economy, the policy rate might change in order to leave demand conditions broadly unchanged after a lag. Returning to the prudential sphere, the parameters of the base regulatory framework are, if only implicitly, determined on the basis of two judgments: the degree of resilience desired, and an assessment of the riskiness of the world. One could think of these as a normative confidence interval for systemic distress, ie a minimum acceptable probability of a crisis, together with an assumed underlying stochastic process generating systemic threats.

But, crucially, the risk environment is not stable. For purposes of exposition, one can think of the underlying stochastic process as having three variants: normal, exuberant and depressed. If the regulatory regime were permanently calibrated to 'exuberant', there would be a risk of the supply of financial services being impaired. If, however, it is calibrated to 'normal', that will not be sufficient to deliver the desired degree of resilience during exuberant phases. Thus, since an exuberant boom in credit and asset markets might temporarily alter the riskiness of the world (change the underlying stochastic process), capital (K) requirements (or minimum collateral requirements) might need to be increased temporarily in order to maintain system resilience in line with an *unchanged* degree of resilience desired by society. (In summary notation, if monetary policy is trying to keep r in line with r^* , macro-prudential policy is trying to keep, in this case, K in line with K^* , defined as the capital level expected to deliver the desired degree

of system resilience.)

In other words, build up an extra buffer during periods of stability-threatening exuberance because, on a forward-looking basis, the resilience of the system would otherwise be eroded. When the ‘bubble’ bursts, a debt-overhang would still impede the subsequent macroeconomic recovery, but the downturn would be less severe if banking (broadly defined) did not collapse because its resilience had been maintained when the environment was unusually threatening.

This way of conceiving of macro-prudential policy has implications for the design of the regime. First, it is consistent with the responsibility for macro-prudential policy being delegated to an independent agency because, as with monetary policy, a political decision-taker would be tempted to substitute their own interests (re-election) for the country’s interests, allowing a potentially destabilizing asset bubble or credit boom to persist in order to harness the ‘feel-good factor’³.

Second, on this view, a central bank would be endowed with a remit and powers *only* to safeguard stability, not to intervene in those market malfunctions, including some asset-price booms, that jeopardize the efficient allocation of resources in the economy but do not materially threaten stability itself. Of course, in practice that distinction involves difficult judgments, but the power of central banks needs to stop somewhere if they are to enjoy substantive legitimacy (as opposed to solely the procedural legitimacy conferred by a legislative act). This is a field where some boundaries are definitely needed.

Third, macro-prudential interventions would typically be preferred to the central bank actively using its balance sheet to intervene in specific asset markets. In normal circumstances, it is better for credit risk premia and, therefore, credit-supply conditions to be influenced by dynamic regulatory policy than for central banks to deploy the fiscal capacity of the state to shift asset prices through weight of money.

Central banking in the future: framing balance-sheet policy

So where, finally, does this leave us on how to frame principles for how central banks should use their balance sheets in the future? This is a big issue.

As others here have said, central bank balance sheets are going to be bigger for quite a while. But even when monetary conditions have returned to normal, their balance sheet management is likely to be richer, with more dimensions than in the past.

³ There is not enough work on time-consistency and political-preference problems in macro-prudential policy. Something as pared down as the Barro-Gordon model of price-stability credibility is needed.

Most of the main central banks now remunerate balances that banks hold with them ('reserves'). Some, like the ECB and the Bank of England, adopted that regime before the crisis. Others, such as the Fed, adopted it to help manage the crisis. Combined with the use of so-called 'corridor systems' for setting interest rates, where the central bank acts as both the marginal provider and the marginal taker of overnight funds, this means that central banks are, in principle, going to be able to choose the size of their balance sheet as an independent matter. Further, the composition of the asset portfolio they hold represents a third dimension of choice. Crudely, they will potentially have three instruments: the short-term risk-free interest nominal interest rate; the size of their balance sheet; and the assets they buy or lend against.

There is no denying that the innovations that have been employed during the crisis have opened up new avenues for central bank interventions in our capital markets. Indeed, I am proud of the innovations that I was associated with in the U.K. But the question is whether or not they should be deployed routinely in normal circumstances. I would prefer them to be kept in the locker during normal times. That is for a number of reasons, which I shall do more than sketch here.

The first is that it is tremendously important that parliaments, and citizens themselves, should be able to make sense of what central banks are doing. That is necessary if they are to be able to criticize central banks or support them. Accountability would be harder if central banks were always using lots of different instruments. This points to a principle of parsimony: central banks should use only as many tools as they need to. If they can get the job done with only the short-term interest-rate instrument, they should do so.

Secondly, central banks need to take care before buying private-sector paper because it takes them in to the realm of fiscal policy. It can involve intervening in the allocation of credit; and it entails a risk of loss (or profit). As Ben quite rightly described, taking a loss does not automatically undermine the central bank, but it does mean that the seignorage income that goes to the government will be smaller, and therefore taxes will be higher or spending will be lower. Whilst any recapitalization should in theory be routine, in the real world there is a risk of it politicizing the central bank. This points to a principle that central bank balance sheet operations should be 'vanilla' when they can be.

Arguably more important than whether central banks should be free to employ their newly discovered toolbox in normal circumstances is who decides. If they are to employ these tools, it needs to be under a mandate given by elected governments. Central banks can't create their own legitimacy, however good a job they do. Legitimacy requires a mandate from the elected representatives of the people. Even in today's continuing crisis, one would, I think, want broad support for such an intervention.

As the crisis gradually passes, these issues will need to be addressed. Innovating in the midst of a crisis is one thing. But it would be quite another thing for a future generation of central bankers to find itself making a substantively similar set of innovations to

contain a future crisis without the discipline and support of an articulated regime framed in the light of this generation's experiences⁴.

Conclusions

Summing up, while a few areas of central banking will survive into the post-crisis world intact, much will need to change. Whether it be the banking union or financial regulation or new macro-prudential policies or central bank balance-sheet policies, much has been done but much remains to be done to build firm foundations --- effective but also democratically legitimate foundations --- for the future. Some of that work is advanced, some underway, and some can perhaps wait until the crisis is truly behind us.

Public debate will be needed as public anger, eventually, subsides. Democratically elected governments will need to do what only they can do --- both in forging and implementing fundamental reforms; and in ensuring that unelected, independent and powerful central bankers operate within clearly understood frameworks. As those tasks are confronted, the most important principles to hold onto should be democracy, justice and reason. Those ancient Athenian hills, the splendid backdrop to this conference, carry messages down to us that are as burningly relevant today as they ever were.

⁴ For a somewhat more detailed account of these points, see Tucker, Chicago Booth Myron Scholes Lecture 2014, *op cit*.